

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

STRIKEFORCE TECHNOLOGIES, INC.	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 1:13-cv-00490-RGA-MPT
	)	
PHONEFACTOR, INC. <i>et al.</i> ,	)	
	)	
Defendants.	)	

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**PLAINTIFF’S RESPONSE TO DEFENDANT’S OBJECTIONS TO REPORT AND  
RECOMMENDATION REGARDING CLAIM CONSTRUCTION**

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## **TABLE OF CONTENTS**

	<b>Page</b>
I. ARGUMENT .....	1
A. “Comparator Means” / “Component” .....	2
1. “Comparator Means” and “Component” Have a Structure Linked to Their Function.....	2
2. PhoneFactor’s Purported Distinction Between a Demand for Access and an Accessor is Non-Existent .....	4
B. “Biometric Analyzer” / “Voice Recognition Means” / “Voice Sampling Means” .....	5
1. “Biometric Analyzer” .....	5
2. “Voice Recognition Means” .....	8
3. “Voice Sampling Means” .....	9
C. “Authentication Program Mechanism” .....	9
II. CONCLUSION.....	10

**TABLE OF AUTHORITIES**

	<b>Page(s)</b>
<b>CASES</b>	
<i>AllVoice Computing PLC v. Nuance Commc'ns</i> , 504 F.3d 1236 (Fed. Cir. 2007).....	6, 7
<i>Atmel Corp. v. Information Storage Devices, Inc.</i> , 198 F.3d 1374 (Fed.Cir.1999).....	1
<i>Elcommerce.com, Inc. v. SAP AG</i> , 745 F.3d 490 (Fed. Cir. 2014).....	1
<i>Finisar Corp. v. DirecTV Group, Inc.</i> , 523 F.3d 1323 (Fed. Cir. 2008).....	1
<i>Lighting World, Inc. v. Birchwood Lighting, Inc.</i> , 382 F.3d 1354 (Fed. Cir. 2004).....	5
<i>Med. Instrumentation and Diagnostics Corp. v. Elekta AB</i> , 344 F.3d 1205 (Fed.Cir.2003).....	6
<i>Williamson v. Citrix Online, LLC</i> , 770 F.3d 1371 (Fed. Cir. 2014).....	5
<b>STATUTES</b>	
28 U.S.C. § 636(b)(1) .....	1
<b>OTHER AUTHORITIES</b>	
Fed. R. Civ. Proc. 72(b) .....	1
U.S. Patent 5,153,918 .....	5
U.S. Patent 5,615,277 .....	5
U.S. Patent 7,870,599 .....	2, 3, 4, 5, 6, 7, 8, 9
U.S. Patent 8,484,698 .....	2, 3
U.S. Patent 8,713,701 .....	2, 3, 8

Pursuant to 28 U.S.C. § 636(b)(1) and Federal Rule of Civil Procedure 72(b), Plaintiff StrikeForce Technologies, Inc. (“StrikeForce”) submits this Response to the Defendant’s Objection to Magistrate Judge Thyng’s January 29, 2015 Report and Recommendation (“Report”) regarding claim construction. The Defendant’s objections reflect a basic misunderstanding of the patents-in-suit and the law regarding means-plus-function claims. Accordingly, the Court should affirm the findings of the Report with regard to the claim terms, as discussed herein.

## **I. ARGUMENT**

PhoneFactor has failed to show that the Report’s construction of the means-plus-function terms was erroneous. The standards for invalidation of means-plus-function claim terms are exacting, requiring, “clear and convincing evidence that a person of ordinary skill in the field of the invention would be unable to recognize supporting structure and acts in the written description and associate it with the corresponding function in the claim.” *Elcommerce.com, Inc. v. SAP AG*, 745 F.3d 490, 506-07 (Fed. Cir. 2014); *see also* Report at 9. Indeed, “[a]ll one needs to do in order to obtain the benefit of that claiming device [§ 112 ¶ 6] is to recite some structure corresponding to the means in the specification, as the statute states, so that one can readily ascertain what the claim means and comply with the particularity requirement of ¶ 2.” *Id.* at 501 (quoting *Atmel Corp. v. Information Storage Devices, Inc.*, 198 F.3d 1374, 1382 (Fed.Cir.1999)). The patentee must make the disclosure “to the satisfaction of one of ordinary skill in the art, enough of an algorithm under § 112, ¶ 6.” *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1340 (Fed. Cir. 2008). Crucially, “[t]his court permits a patentee to express that algorithm in any understandable terms including as a mathematical formula, in prose . . . or as a flow chart, or in any other manner that provides sufficient structure.” *Id.* Here, the Report

correctly found ample evidence in the patents' specifications both of the structure and function for all of the disputed means-plus-function claim terms.

In this case, StrikeForce asserts against PhoneFactor United States Patent Nos. 7,870,599; 8,484,698; and 8,713,701 ("the '599 Patent;" "the '698 Patent;" "the '701 Patent;" collectively the "patents-in-suit"). The specification, claims, and prosecution history provide a robust disclosure of structure and function for all of the disputed terms. Indeed, the PTO took the exceptional step of highlighting the sufficiency of the means-plus-function claim terms below:

The Examiner **has found proper support for the means-plus-function language** of the limitations of claims 1, 7, 9, 11, 16, 18, 30, and 32-34: interception means in at least [0052-0053] of the specification, prompt means in at least [0056-0058] of the specification, **comparator means** in at least [0057], **authentication program means** in at least [0072] of the specification, **sampling means** in at least [0041], **voice sampling means** and **voice recognition means** in at least [0039-0041] of the specifications.

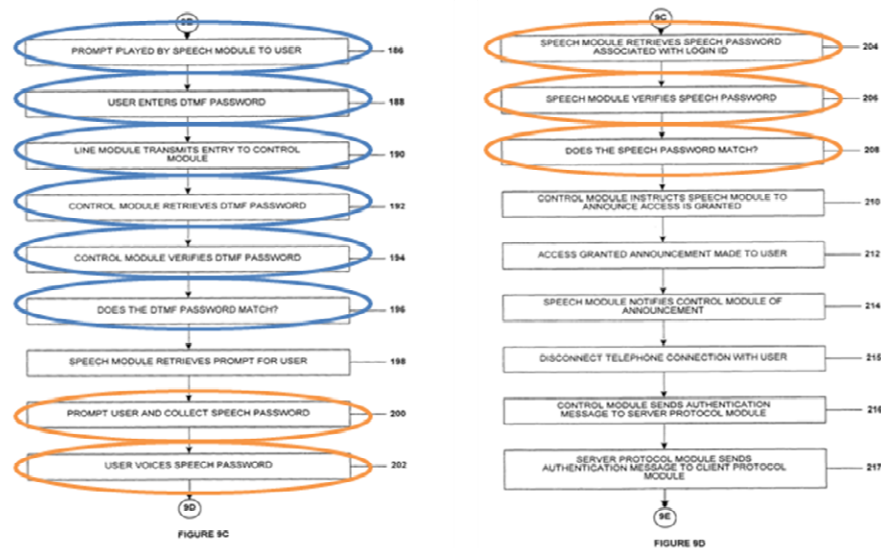
Report at 38 (quoting Ex. Z at SF000467) (emphasis added). Citing on these and other disclosures throughout the intrinsic record, the Report correctly determined that all means-plus-function terms at issue had ample support for structure and function. Therefore, for the reasons discussed herein, the constructions should be affirmed.

#### A. "Comparator Means" / "Component"

##### 1. "Comparator Means" and "Component" Have a Structure Linked to Their Function

The Report found that the terms "comparator means" and "component" were supported by sufficient function and structure. Report at 38 & 54. As noted in the Report and by the PTO, the specification of the patents-in-suit provides **both prose and flow charts** describing a structure linked to the function of "comparator means" and "component for receiving the transmitted data and comparing said transmitted data to predetermined data, such that, depending on the comparison of the transmitted and the predetermined data, said security computer outputs

an instruction to the host computer to grant access to the host computer or deny access thereto,” which corresponds to “comparator means” in structure. The flow chart from Figures 9C and 9D below articulates the steps of the algorithm followed by the “comparator means” or “component” in a preferred embodiment.



In general terms, the flow chart demonstrates that a prompt is sent to the user, the user responds with a password, a program module retrieves the associated password, verifies that it is correctly associated, and performs a simple check to match the user’s input with the password it has retrieved. The steps are also described in prose in the specification of the ’599 Patent.<sup>1</sup> The “comparator means” and “component” algorithms of steps 186 to 196 are explained at column 10, lines 23 through 42. The “comparator means” and “component” algorithms of steps 200 to 208 are explained at column 11, lines 1 through 33.

Moreover, a “comparator means” and a “component” performing that same function were well known in the art at the time of the invention. Sherman Decl. ¶¶ 33, 35. The Report highlighted this point, noting that for a “comparator means,” “[t]he concept of comparing one

<sup>1</sup> The patents-in-suit share a specification. All citations herein to the specification are to the ’599 Patent, but apply with equal force to ’698 and ’701 Patents.

piece of data to another is one of the most fundamental concepts in computer science.” Report at 37 (quoting Sherman Decl. ¶ 35). The Report also identified substantial discussion and associated flow charts for the structure of a “component” performing the function of data comparison, specifically citing Figure 9 and its associated disclosure in the specification. Report at 44. For these reasons, the Report’s finding should be affirmed with regard to “comparator means” and “component.”

## 2. PhoneFactor’s Purported Distinction Between a Demand for Access and an Accessor is Non-Existent

Against the weight of intrinsic evidence, PhoneFactor draws an artificial distinction between authentication of an “access demand” and “accessor.” Instead, PhoneFactor’s sparse purported intrinsic evidence contradicts its position. The specification states: “The accessor is the computer equipment 22, including the central processing unit and the operating system thereof, and the person or user 24 whose voice is transmittable by the telephone 26 over telephone lines 28.” 6:9-13.<sup>2</sup> Thus, because the accessor sends the demand for his or her access, they are inextricably tied. The system cannot authenticate one without authenticating the other. In the Report, Judge Thyng affirmed this point, noting that even PhoneFactor’s expert “does not explain how a comparator means could possibly authenticate an access demand, including the user’s credentials, without authenticating the user. It is not possible. Any comparator means that authenticates the user credentials must authenticate the user herself, since both are inextricably linked.” Report at 38 (quoting Sherman Decl. ¶ 38).

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<sup>2</sup> Citations to the ’599 Patent’s specification are provided here in “column:line(s)” format.

**B. “Biometric Analyzer” / “Voice Recognition Means” / “Voice Sampling Means”**

**1. “Biometric Analyzer”**

PhoneFactor challenges the Report’s constructions regarding “biometric analyzer,” “voice recognition means,” and “voice sampling means,” arguing that “[t]he patents’ specification . . . fails to provide any disclosure of how to compare a stored sample of biometric data with the input of an accessor, thereby rendering the claims invalid as indefinite.” Obj. 7. While StrikeForce disagrees that the term “biometric analyzer” is a means-plus-function term, even if it is found to be as such, Judge Thyng is correct in holding that a sufficient algorithm is disclosed.

Initially, “biometric analyzer” is not a mean-plus-function term. The Federal Circuit recently reiterated the strong presumption against means-plus-function for claim terms that do not use the word “means.” *Williamson v. Citrix Online, LLC*, 770 F.3d 1371, 1379 (Fed. Cir. 2014). Indeed, the Federal Circuit reinforced that it has “‘seldom held that a limitation not using the term ‘means’ must be considered to be in means-plus-function form,’ and ‘the circumstances must be [unusual] to overcome the presumption’.” *Id.* (quoting *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1362 (Fed. Cir. 2004)). A “biometric analyzer” had a definite structure known in the art at the time of the invention. Sherman Decl. ¶ 29-30. Even prior art references cited in the ’599 Patent, such as Hoffman (U.S. Pat. No. 5,615,277) and Tuai (U.S. Pat. No. 5,153,918), integrated just such known biometric software products into their systems. ’599 Patent at 3:41-45; 3:58-61.

Even if the Report’s construction of these terms as means-plus-function terms is correct, however, Judge Thyng found ample support in the intrinsic record demonstrating structure and function. “In software cases . . . algorithms in the specification need only disclose adequate defining structure to render the bounds of the claim understandable to one of ordinary skill in the



art.” *AllVoice Computing PLC v. Nuance Commc'ns*, 504 F.3d 1236, 1245 (Fed. Cir. 2007).

Indeed, as is the case with “biometric analyzer,” “there would be no need for a disclosure of the specific program code if software were linked to the converting function and one skilled in the art would know the kind of program to use.” *Id.* (quoting *Med. Instrumentation and Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1214 (Fed.Cir.2003)). The Report correctly applied this precedent, finding that the ’599 Patent’s specification – not the prosecution history – clearly articulates such an algorithm for the “biometric analyzer:” “[1] [m]onitoring a particular parameter of the individual person; [2] . . . retrieving a previously stored sample (biometric data), thereof from a database [3] and comparing the stored sample with the input of the accessor.” Report at 42 (quoting the ’599 Patent at 6:29-35). This identified algorithm matched what was known in the art at the time of the invention. Sherman Decl. ¶ 30 (citing Ex. 13). Third-party “biometric analyzer” software was well-known as early as 1998 (Sherman Decl. ¶ 29), and the inventor simply linked such software into his claimed system, **writing “the main, controlling program,”** but using “third party libraries from...Nuance (to perform speech recognition and verification).” Report at 41 (quoting Ex. S at SF000951). Thus, the Report correctly found that the ’599 Patent properly disclosed adequate defining structure to render the bounds of the claim understandable to one of ordinary skill in the art.

PhoneFactor’s tenuous lynchpin argument for lack of structure, requesting the processing details **within** the biometric software’s libraries, is thus entirely undone by the explicit disclosure of Exhibit S and the patents’ specifications. StrikeForce’s patents identify well-known software for carrying out a biometric comparison: Nuance. This is not just a basic algorithm, but rather a stand-alone, well-known biometric analysis product used in the claimed system. Sherman

Decl. ¶¶ 29-30. The algorithm for using this product in the claimed system is disclosed in the specification of the '599 Patent. Report at 42 (quoting the '599 Patent at 6:29-35).

PhoneFactor appears to misunderstand what is claimed by the invention. StrikeForce has never represented to having invented biometric analysis software. Instead, the claimed system utilizes a main, controlling program. Report at 41 (quoting Ex. S at SF000951). This program simply incorporated a well-known, preexisting biometric analysis product into the claimed system. The Report thus correctly acknowledged that StrikeForce's disclosure satisfies the Federal Circuit's requirements. Report at 41 (citing *AllVoice*, 504 F.3d at 1245).

PhoneFactor also seizes upon Dr. Sherman's use of the term "off-the-shelf," while failing to note that this term, at all times, is describing "software for biometric analysis," a well-known, discrete product sold at the time of the invention. Sherman Decl. ¶ 29. Biometric analysis is performed by a specific type of "off-the-shelf" software product, not any "off-the-shelf" software running on any personal computer, as discussed in the precedent on which PhoneFactor relies. Sherman Decl. ¶ 27. As previously noted, the prior art references Hoffman and Tuai both similarly incorporated a biometric product into their claimed systems. '599 Patent at 3:41-45; 3:58-61.

StrikeForce does not contend that any off-the-shelf software running on a personal computer can be used for biometric analysis. Indeed, it cannot. Rather, only "off-the-shelf **software for biometric analysis**" is used. Report at 41 n.147 (quoting Sherman Decl. ¶ 29). The inventor identified one such highly specialized, well-known "off-the-shelf" product, Nuance Speech Recognition System, to the PTO. Ex. S at SF000977. These types of software products and their basic algorithm, as identified in the patents, were well-known. Sherman Decl. ¶ 30 (citing Ex. 13). The Report summarized this succinctly, stating that "Here, plaintiff is not

attempting to fill the gaps in the specification as to a different function; it provides an algorithm for performing biometric analysis, the specific performance of which utilizes third-party software (as disclosed in the intrinsic record).” Report at 49 n.168. Thus, even if the Court finds that “biometric analyzer” is a means-plus-function term, the Report’s construction should stand.

## 2. “Voice Recognition Means”

As the Report correctly highlighted, “voice recognition means” is simply a subset of biometric analysis: “While voice recognition is used herein, it is merely exemplary of many forms of recognizing or identifying an individual person. Others include, but are not limited to fingerprint identification, iris recognition, retina identification, palms recognition, and face recognition.” Report at 48; ’599 Patent, 6:25-29. This is confirmed in claim 8 of the ’701 Patent, which is dependent from claim 7, and recites “A security system as described in claim 7, [wherein] said **biometric analyzer is a voice recognition program** for operation within said authentication channel.” ’701 Patent, 15:13-15. The “voice recognition means” and its function are also clearly defined by, for example, claim 30 of the ’599 Patent, which recites a “voice recognition means for authenticating at least one access demand in response to transmission of the predetermined auditory statement.”

Further support for “voice recognition means” as a method of biometric analysis appears in the specification of the ’599 Patent. There, the patent discloses that, in a preferred embodiment, “[t]hrough the application of biometric analysis, such as **voice recognition technology**, the speech or module 66...**verifies** that the voiced speech password received from the user 24 has the same pattern as the speech password retrieved from database 128.” 11:13-18. Figures 9C and 9D at steps 198 through 208, and their corresponding disclosure in the ’599 Patent’s specification at 10:55 through 11:31, provide yet another description in the form of flow

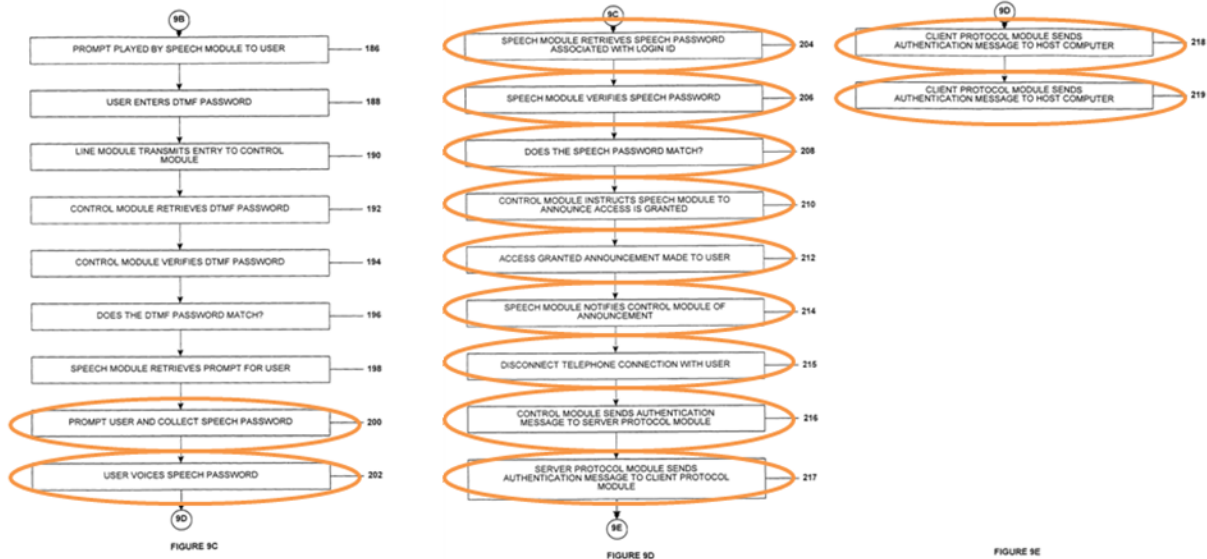
charts and prose, again providing the algorithm for a “voice recognition means.” The Report’s construction is therefore correct.

### 3. “Voice Sampling Means”

“Voice sampling means” is similarly a subset of biometric analysis, as shown by claim 30 of the ’599 Patent, which recites “[t]he method according to claim 29, wherein the **voice recognition program comprises: a...voice sampling means...and voice recognition means.**” 18:55-65. The algorithm by which a biometric analyzer sampled voice was explicitly disclosed in the specification of the ’599 Patent. Report at 49 (quoting 6:29-35). The Report’s construction of “voice sampling means” is thus correct.

### C. “Authentication Program Mechanism”

The specification of the ’599 Patent provides ample disclosure, in both prose and as a flow chart, for the term “authentication program mechanism.” For example, in Figures 9C through 9E, steps 200 through 219 articulate the algorithm of the “authentication program means,” as it is employed in a preferred embodiment. The specification further provides a detailed explanation of these steps from 11:1 to 12:2 of the ’599 Patent’s specification. The Report correctly noted this disclosure in determining that the term was definite and in reaching the correct construction. Report at 51.



PhoneFactor's criticisms of the Report's construction are based on the same argument that the Report readily dismissed as a non-existent distinction between authentication of a demand for access and an accessor. As explained above in Part A.2, and adopted by the Report, there is no such distinction. Report at 38 (quoting Sherman Decl. ¶ 38). For these reasons, the Report's construction should be affirmed.

## II. CONCLUSION

For the foregoing reasons, the Court should reject PhoneFactor's objections and affirm the Report for the claim terms discussed above.

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